

### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

Claim 1 (currently amended):        A method comprising:  
providing a low voltage signal to a liquid crystal cell; and  
driving a data electrode of the liquid crystal cell with the low voltage signal, the low voltage signal comprising a value obtained via a single variable linear function for temperature compensation.

Claim 2 (original):    The method of claim 1, wherein providing the low voltage signal comprises providing a pulse width modulated signal.

Claim 3 (original):    The method of claim 2, wherein the pulse width modulated signal comprises variable width square wave pulses.

Claim 4 (original):    The method of claim 2, further comprising providing the pulse width modulated signal at equal to or less than approximately 3.3 volts.

Claim 5 (original):    The method of claim 1, further comprising providing a frame update to the liquid crystal cell.

Claim 6 (original):    The method of claim 1, wherein driving the liquid crystal cell comprises causing an optically digital response in the liquid crystal cell to a digital signal.

Claim 7 (currently amended):        The method of claim 1, further comprising driving the liquid crystal cell at a frequency greater than 120 Hertz to output data of a first color and a second color and driving a second liquid crystal cell to output data of a third color.

Claim 8 (currently amended): The method of claim 7, further comprising driving the liquid crystal cell with a color sequence having at least two colors via an incident light that passes through a color wheel having the at least two colors.

Claim 9 (original): The method of claim 1, further comprising retarding an output of the liquid crystal cell by less than a quarter wave.

Claim 10 (currently amended): An apparatus comprising:  
a liquid crystal cell including:

a first substrate having a plurality of micromirrors patterned over a plurality of control electrodes patterned on the first substrate;

a second substrate located over the first substrate;

having a liquid crystal material sandwiched between the first substrate and the second substrate; and

a partial polarization rotation retarder adjacent to the second substrate, the partial polarization rotation retarder to retard an output of the liquid crystal cell by less than a quarter wave; and

drive circuitry coupled to the liquid crystal cell, the drive circuitry to provide a low voltage signal to drive the plurality of control electrodes of the liquid crystal cell.

Claim 11 (cancel)

Claim 12 (currently amended): The apparatus of claim ~~[[11]]~~ 10, wherein the partial polarization rotation retarder comprises a partial wave retardation film.

Claim 13 (currently amended): The apparatus of claim ~~[[11]]~~ 10, further comprising a control device to control a gap between the partial polarization rotation retarder and the liquid crystal cell.

Claim 14 (original): The apparatus of claim 10, wherein the liquid crystal cell has a cell gap of less than approximately 1 micron.

Claims 15 and 16 (cancel)

Claim 17 (original): The apparatus of claim 10, wherein the drive circuitry is coupled to provide a low voltage pulse width modulated signal.

Claim 18 (original): The apparatus of claim 10, wherein the liquid crystal cell comprises a microdisplay.

Claim 19 (original): The apparatus of claim 18, wherein the microdisplay comprises a liquid crystal on silicon device.

Claim 20 (currently amended): A system comprising:  
a polarization beam splitter;  
a liquid crystal cell having a liquid crystal material and positioned to receive incident light from the polarization beam splitter, the liquid crystal cell including:  
a first substrate having a plurality of micromirrors patterned over a plurality of control electrodes patterned on the first substrate;  
a second substrate located over the first substrate; and  
a partial polarization rotation retarder adjacent to the second substrate, the partial polarization rotation retarder to retard an output of the liquid crystal cell by less than a quarter wave; and  
drive circuitry coupled to the liquid crystal cell, the drive circuitry to provide ~~[[a]]~~ low voltage ~~signal~~ signals to drive the plurality of control electrodes of the liquid crystal cell, wherein the drive circuitry comprises a processor and at least two frame buffers to provide frame updates to the liquid crystal cell.

Claim 21 (cancel)

Claim 22 (original): The system of claim 20, wherein the liquid crystal cell has a cell gap less than approximately 1 micron.

Claim 23 (original): The system of claim 20, wherein the liquid crystal cell comprises a liquid crystal on silicon display.

Claim 24 (original): The system of claim 20, further comprising a color switcher to switch the incident light into light of at least two colors.

Claim 25 (original): The system of claim 24, further comprising at least two liquid crystal cells to receive the light of at least two colors.

Claim 26 (cancel)

Claim 27 (currently amended): An article comprising a machine-readable storage medium containing instructions that if executed enable a system to:

form a low voltage signal;

provide the low voltage signal to a liquid crystal cell; and

drive a data electrode of the liquid crystal cell with the low voltage signal, the low voltage signal comprising a value obtained via a single variable linear function for temperature compensation.

Claim 28 (original): The article of claim 27, further comprising instructions that if executed enable the system to drive the liquid crystal cell with a low voltage pulse width modulated signal.

Claim 29 (currently amended): The article of claim 27, further comprising instructions that if executed enable the system to provide a first frame update to the liquid crystal cell from a first frame buffer.

Claim 30 (currently amended): The article of claim 29, further comprising instructions that if executed enable the system to store a second frame update in a second frame

buffer while the first frame update is provided to the liquid crystal cell from the first frame buffer.

Claim 31 (new): The apparatus of claim 10, wherein the drive circuitry comprises a processor and at least two frame buffers to provide frame updates to the liquid crystal cell.